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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,173	03/06/2002	John Voneiff	031937.0006	1310
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HUNTON & WILLIAMS LLP INTELLECTUAL PROPERTY DEPARTMENT 1900 K STREET, N.W. SUITE 1200 WASHINGTON, DC 20006-1109			EXAMINER PRONE, JASON D	
			ART UNIT	PAPER NUMBER
			3724	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/091,173

Applicant(s)

VONEIFF ET AL.

Examiner

Jason Prone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-35 is/are pending in the application.
- 4a) Of the above claim(s) 12,13,20-26,32 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11,14-19,27-31,33 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of group I and species C and F in the responses filed 22 February 2005 and 18 August 2005 is acknowledged.
2. Claims 20-26 and claims 12, 13, 32, and 34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group and a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the replies filed on 22 February 2005 and 18 August 2005. Claims 12 and 32 incorporate a roller covered in porous material that belongs with non-elected species D. Claims 13 and 34 incorporate rollers that produce attractive and repulsive forces that belong with non-elected species E.

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: In Figure 2, items "220" and "230". Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

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not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "continuous blade" and the "blade take-up canister" of claims 16 and 35 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

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5. Claims 11 and 15 are objected to because of the following informalities: On line 8 of claim 11, the phrase "said slicing means" should be replaced with "said blade assembly" for consistency. On lines 8 and 11 of claim 11, the phrase "a thin section" should be replaced with "said thin section". On line 11 of claim 11, the phrase "said plurality" should be replaced with "said plurality of transfer rollers". On line 1 of claim 15, the phrase "said slicing means" should be replaced with "said blade assembly". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 16-18 and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In regards to claims 16 and 35, page 10 lines 16 of the specification states the "blade may be continuous". In order for the blade to be continuous it would have to incorporate a loop-type structure similar to a band saw blade. However, using Figure 3, it is unclear how the apparatus could function with a loop-type blade. The cutting or top portion of the loop would go over top the wall structure separating the first and second canisters but it is unclear how the return or bottom portion of the loop would be able to

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return. Basically it is unclear how a continuous blade could be used when the apparatus appears only to be able to function with a non-continuous blade.

It is requested that applicant's response to this Office action include a description of how the blade assembly and blade canisters work. Since one skilled in the art may understand how the cutting system works, a rejection is not proper. The description needs only to be in the "remarks" section of the next response to help the examiner better understand/examine the instant application.

In regards to claim 17, the limitation "an optical sensor for automatically determining an orientation of said tissue sample" is unclear. Assuming the "optical sensor" is the same structure as optical imaging system 348, the specification (page 17 lines 28-29) discloses "the location of the tissue sample within the paraffin block is determined by optical imaging system". There is no support in the specification that the optical sensor determines anything other than the location of the tissue sample.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 11, 14, 27, 29, 31, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by McCormick (5,156,019).

Claims 11 and 14:

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In regards to claim 11, McCormick discloses the same invention including a blade assembly for slicing thin section from a work piece (18), a plurality of transfer rollers sequentially arranged in tangential proximity to each other (40a, 48, and 40), a thin section on the surface of one transfer roller will be transferred to the surface of the sequentially successive transfer roller (40 Fig. 1, it is noted that item A need not be directly in contact with item B to be considered on the surface of item B. For example, if three books were stacked, the highest book is still on the surface of the lowest book via the middle book), a first sequential transfer roller is oriented in proximity to the slicing means (40a) so that a thin section sliced from the work piece will contact the surface of the first sequential transfer roller (26 contacts belt 24 which contacts roller 40a, therefore 26 contacts the surface of 40a), and a receiving medium (62) disposed in tangential proximity to a final sequential transfer roller (far right 40) so that the thin section on the surface of the final sequential roller will be transferred to the receiving medium in a substantially smooth and flat configuration (occurrence of 26 to the right of 40).

In regards to claim 14, McCormick discloses at least a portion of a circumference of one of the transfer roller is temperature controlled (40a, roller 40a is within an environment defined by 22 which is kept at a specific temperature, since the roller would take on the specific cold property, it therefore, is temperature controlled).

Claims 27, 29, 31, and 33:

In regards to claim 27, McCormick discloses the same invention including a holding assembly for manipulating a work piece (16), a blade assembly for preparing a

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thin section from the work piece (18), a transfer roller mechanism (40a, 48, and 40) for transferring the thin section to a receiving medium (62), and a controller (34).

In regards to claim 29, McCormick discloses the controller tracks the work piece (34, meaning the controller runs the work piece along a specific oscillatory path).

In regards to claim 31, McCormick discloses a first transfer roller positioned adjacent to the blade assembly for receiving the thin section from the blade (40a) and a second transfer roller for receiving the thin section from the first transfer roller and transferring the thin section to the receiving medium (40).

In regards to claim 33, McCormick discloses at least a portion of a circumference of one of the transfer roller is temperature controlled (40a, roller 40a is within an environment defined by 22 which is kept at a specific temperature, since the roller would take on the specific cold property, it therefore, is temperature controlled).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick in view of Burkhardt (3,286,575). McCormick discloses the invention including a blade assembly for producing thin sections (18).

However, McCormick fails to disclose a first blade assembly. Burkhardt teaches a first or preliminary blade assembly (Column 1, lines 33-35). It is also old and well



known in the art of manufacturing to cut a work piece down to a specific size so that the work piece fits in the next machine of the manufacturing process. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided McCormick, with a first or preliminary blade assembly, as taught by Burkhardt, to cut away unwanted parts of the work piece before the critical cutting takes place.

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick in view of Fukuta et al. (6,520,061). McCormick discloses the invention but fails to disclose a blade supply canister, a blade take-up canister, and the blade is advanced from the blade supply canister to the blade take-up canister at predetermined intervals. Fukuta et al. teaches that it is old and well known in the art of stationary blade/moving workpiece saw to incorporate a blade supply canister (10-1), a blade take-up canister (10-2), and the blade is capable of being advanced from the blade supply canister to the blade take-up canister at predetermined intervals (column 3 lines 66-67 cont. column 4 lines 1-2). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided McCormick, with the slicing means, as taught by Fukuta et al., to provide a longer lasting blade to perform the slicing function.

13. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick in view of Blumenfeld (6,074,868). McCormick discloses the invention but fails to disclose a display means for displaying operating information. Blumenfeld teaches that it is old and well known in the art of machines adapted to work with slides to incorporate a display means (22b). Therefore, it would have been obvious to one of

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ordinary skill in the art, at the time of the invention, to have provided McCormick, with a display means, as taught by Blumenfeld, to allow the productivity of the machine to be watched and corrected if need be.

14. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick in view of Burkhardt (3,286,575). McCormick discloses the invention but fails to disclose a preliminary blade assembly capable of removing slices from the work piece. Burkhardt teaches a preliminary blade assembly capable of removing slices from the work piece (Column 1, lines 33-35). It is also old and well known in the art of manufacturing to cut a work piece down to a specific size so that the work piece fits in the next machine of the manufacturing process. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided McCormick, with a first or preliminary blade assembly, as taught by Burkhardt, to cut away unwanted parts of the work piece before the critical cutting takes place.

15. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick in view of Giuliano et al. (6,416,959). McCormick discloses the invention including the controller determines an orientation of the sample blade with respect to the blade assembly (34).

However, McCormick fails to disclose an optical imaging system for locating the tissue sample within the sample block. Giuliano et al. teaches an optical imaging system for locating the tissue sample within the sample block (215 and Column 11 lines 26-40). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided McCormick, with an optical imaging system, as

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taught by Giuliano et al., to allow the user to detect best part of the work piece to slice off and be put onto a slide.

16. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick in view of Fukuta et al. McCormick discloses the invention but fails to disclose a blade supply canister, a blade take-up canister, and the blade is advanced from the blade supply canister to the blade take-up canister at predetermined intervals. Fukuta et al. teaches that it is old and well known in the art of stationary blade/moving work piece saw to incorporate a blade supply canister (10-1), a blade take-up canister (10-2), and the blade is capable of being advanced from the blade supply canister to the blade take-up canister at predetermined intervals (column 3 lines 66-67 cont. column 4 lines 1-2). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided McCormick, with the slicing means, as taught by Fukuta et al., to provide a longer lasting blade to perform the slicing function.

17. It is to be noted that claims 17 and 18 have not been rejected over prior art. It may or may not be readable over the prior art but cannot be determined at this time in view of the issues under 35 USC § 112.

### ***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pickett ('247), Pickett ('948), Lassmann et al., Reichel, Izvozhikov et al., Voneiff et al., Günther et al., and Borosic.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is (571) 272-4513. The examiner can normally be reached on 7:30-5:00, Mon - (every other) Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 08, 2005



Patent Examiner  
Jason Prone  
Art Unit 3724  
T.C. 3700